

REMARKS

This is a response to the final Office Action dated November 15, 2010. A fee of (130.00) is due in connection with this response. The Director is authorized to charge this fee and any fees that may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 3712036-750 on the account statement.

Claims 1-12 are pending in this application. In the Office Action, Claims 1-12 are rejected under 35 U.S.C. §103. In response, Claims 1, 7 and 11-12 have been amended, and Claims 13-17 have been added. The amendments do not add new matter. In view of the amendments and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, Claims 1-6 and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,552,773 to Kahn et al. ("*Kahn*") in view of U.S. Patent No. 5,127,956 to Hansen et al. ("*Hansen*"). Claims 7-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Kahn* and *Hansen* in further view of WO 01/06865 to Vaghela et al. ("*Vaghela*"). Applicants respectfully traverse the rejections for at least the reasons set forth below.

Independent Claims 1, 7 and 11-12 have been amended to recite, in part, that the aerated frozen confection being resistant to shrinkage and soft down to a storage temperature of -18 °C or less. The amendments are supported in the specification, for example, at page 2, lines 12-14 and the Examples. Independent Claims 1 and 12 further recite, in part, an aerated frozen confection comprising 0.5 to 7% by weight vegetable fiber selected from the group consisting of oat fibers, fibers extracted from chicory taproots and combinations thereof. Independent Claims 7 and 11 further recite, in part, an aerated frozen confection comprising a vegetable fiber selected from the group consisting of oat fibers, fibers extracted from chicory taproots and combinations thereof. In contrast, Applicants respectfully submit that the cited references are deficient with respect to the present claims.

"One way for a patent applicant to rebut a prima facie case of obviousness is to make a showing of 'unexpected results,' i.e., to show that the claimed invention exhibits some superior property or advantage that a person of ordinary skill in the relevant art would have found

surprising or unexpected.” *In re Soni*, 54 F.3d 746, 750 (Fed. Cir. 1995). Applicants have surprisingly found that the claimed aerated frozen confections comprising a polyol and a vegetable fiber selected from the group consisting of oat fibers, fibers extracted from chicory taproots and combinations thereof have high resistance to shrinkage and layering.

There are problems in achieving stability of a very soft ice cream packed in cups or bulk containers. Inside the ice cream, there are ice crystals and air bubbles dispersed in a liquid phase. Softness generally is obtained by reducing the quantity of ice formed. This is mainly obtained by selecting the type and the amount of sugars and by adding salt or alcohol in the ice cream mix. There are limitations with using the low molecular components mentioned above for taste reasons. Thus, if further increase of softness is targeted, the only possibility is to use polyols, e.g., glycerol, which increases the risk of shrinkage. Shrinkage is a serious problem that makes the product unacceptable to the consumer – the volume of the ice cream shrinks, leaving a space either at the top or at the side of the package, which then appears unfull.

Unfortunately, the problem of instability increases with the volume of the liquid phase. Without willing to be bound by theory, when the volume of the liquid phase raises, the air bubbles have a tendency to go up, which may lead to the formation of a layer of ice at the bottom of the container. This default is called layering.

Applicants have surprisingly found a way to provide increased stabilization of soft serve ice cream type of products for home use with high resistance to shrinkage and layering. For example, Applicants surprisingly found that a polyol (e.g., glycerol) in combination with vegetable fibers selected from the group consisting of oat fibers, fibers extracted from chicory taproots and combinations thereof have a strong effect on preventing shrinkage and ice layering in aerated frozen confections even in the presence of glycerol. See specification, Examples.

Kahn, Hansen and *Vaghela* alone or in combination fail to disclose or suggest an aerated frozen confection being resistant to shrinkage and soft down to a storage temperature of -18 °C or less as required by independent Claims 1, 7 and 11-12. *Kahn, Hansen* and *Vaghela* alone or in combination also fail to disclose or suggest an aerated frozen confection comprising a polyol and 0.5 to 7% by weight vegetable fiber selected from the group consisting of oat fibers, fibers extracted from chicory taproots and combinations thereof as required by independent Claims 1 and 12. In addition, *Kahn, Hansen* and *Vaghela* alone or in combination fail to disclose or

suggest an aerated frozen confection comprising a polyol and a vegetable fiber selected from the group consisting of oat fibers, fibers extracted from chicory taproots and combinations thereof as required by independent Claims 7 and 11. In fact, nowhere do *Kahn* and *Vaghela* even disclose the use of oat fibers or fibers extracted from chicory taproots for any purpose. *Hansen* fails to disclose or suggest the use of any polyol, especially glycerol, in its mixture.

The skilled artisan would also have no reason to combine the cited references in an attempt to arrive at the claimed invention because they teach away from each other. *Kahn* discloses whipped products that are soft and spoonable like soft ice-cream at 0 °F. The products (whipped milk shake or ice cream) can also be stored at refrigerator temperatures of about 32 °F to about 42 °F for several days and then consumed with a straw. The whipped products disclosed contain non-fat milk solids, water, sugar, fat and minor effective amounts of flavoring, emulsifier and stabilizers including a polysaccharide stabilizer. *Kahn* teaches that part of the sugar component is preferably replaced by a polyhydric alcohol (e.g., glycerol) to decrease the sweetness of the whipped products and help it become quickly flowable when exposed to ambient temperatures. See *Kahn*, column 2. Stabilizer components include polysaccharide stabilizers, preferably CMC in combination with carrageenan. See *Kahn*, column 4. Gums are also described as possible stabilizers.

Kahn is silent about the use of vegetable fibers consisting of oat fibers, fibers extracted from chicory taproots and combination thereof. The Patent Office states that it would have been obvious to one ordinary skill in the art at the time of the invention to modify *Kahn* in view of *Hansen* and include a chicory based oligosaccharide as a stabilizer in the whipped products of *Kahn*. Applicants respectfully disagree.

Hansen discloses the preparation of a mixture of fructose, glucose and oligosaccharides from roots of chicory and their use as a filler bulking agent with a sweet taste. More particularly, *Hansen* discloses the use of the mixture in products where a large amount of sweetener is desirable with regard to body and texture. Applicants respectfully submit that the described mixture is not said to be useful as a stabilizer. Therefore, a skilled person in the art viewing *Kahn* and looking for an alternative stabilizer than those described in *Kahn* would have absolutely no reason to believe that the mixture described by *Hansen* could be used to replace the stabilizers described by *Kahn*.

According to *Kahn*, the use of a polyhydric alcohol is recommended to replace part of the sugar content in order to achieve a desirable reduction in the sweetness of *Kahn's* whipped products. See *Kahn*, column 6, line 63. In other words, the skilled artisan viewing *Kahn* and looking to reduce the sweetness of its whipped product would have no reason at all and be even taught away from using the mixture disclosed by *Hansen*, which has a sweetening effect and no described stabilizing effect. In addition, the skilled artisan confronted with the problem of improving the stability of the whipped products described by *Kahn* would have absolutely no reason to replace the stabilizers described by *Kahn*, namely polysaccharides, with a filler bulking agent having a sweet taste as taught by *Hansen*.

Applicants have found that the specific selection of vegetable fiber, associated with the presence of a polyol, has a strong effect in preventing shrinkage and ice layering of soft ice cream. The shrinkage sensitivity has been measured with a very specific heat shock cycle described in the application in paragraph 25. The test consists in 18 phases of temperature changes between -20°C and -4°C. The products of the claimed invention described in Table 1 (Examples 1 to 4) were subjected to 4 cycles of heat shock and showed no apparent shrinkage – comparable to a regular ice cream. Consequently, the skilled artisan viewing the cited references would have absolutely no reasonable expectation of success for an improvement in the stability of soft ice cream and of such a resistance shrinkage from harsh heat-shock conditions provided by the vegetable fiber and the polyol as described in Applicants' specification.

What the Patent Office has done is to rely on hindsight reconstruction of the claimed invention. Applicants respectfully submit that it is only with a hindsight reconstruction of Applicants' claimed invention that the Patent Office is able to even attempt to piece together the teachings of the prior art so that the claimed invention is allegedly rendered obvious. Instead, the claims must be viewed as a whole as defined by the claimed invention and not dissected into discrete elements to be analyzed in isolation. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983); *In re Ochiai*, 71 F.3d 1565, 1572, 37 USPQ2d 1127, 1133 (Fed. Cir. 1995). One should not use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d at 1075. (Fed. Cir. 1988).

For at least the reasons discussed above, *Kahn, Hansen and Vaghela* fail to teach or suggest each and every element of independent Claims 1, 7 and 11-12, along with any of the claims that depend from Claims 1, 7 and 11-12. Moreover, the cited references fail to teach, suggest or even recognize the advantages and benefits of using a vegetable fiber and a polyol to provide an improved aerated frozen confection in accordance with the present claims. Accordingly, Applicants respectfully request that the rejections of the pending claims under 35 U.S.C. §103(a) be withdrawn.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly request an early allowance of the same. In the event there remains any impediment to allowance of the claims that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

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